V. CERTIFICATE OF SERVICE

I, Michael C. Trahos, do hereby certify that a copy of these **REPLY COMMENTS** were sent by United States First Class Mail to the parties listed below on the day and date first above written.

1. W. Michael Tupman, Esquire
   Lawrence W. Lewis, Esquire
   Deputy Attorney's General
   Department of Justice
   820 N. French Street, 6th Floor
   Wilmington, DE 19801

Respectfully,

Michael C. Trahos

Michael C. Trahos, D.O., NCE, CET

EXHIBIT C

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WIRELESS TELECOMMUNICATIONS BUREAU
PRIVATE WIRELESS DIVISION
WASHINGTON, D.C. 20554

In The Matter of	)	
	)	
Washington, DC Metropolitan Area	)	
Regional Public Safety Plan	)	GN Docket No. 90-7
(Region-20)	)	
	)	
Philadelphia Metropolitan Area	)	
Regional Public Safety Plan	)	GN Docket No. 89-573
(Region-28)	)	

LETTER AND WRITTEN EXPARTE PRESENTATION

To:

Ms. Kathryn Hosford
Public Safety Liaison Officer
Private Wireless Division
Wireless Telecommunications Bureau
2025 M Street, N.W., 8th Floor
Washington, DC 20554

From:

Mr. Steve Souder - Chairman
Region-20 Public Safety Review Committee
Arlington County (VA) Emergency Communications Center
1400 North Uhle Street, 5th Floor
Arlington, Virginia 22201-9998

January 2, 1997

Dear Ms. Hosford,

I am in receipt of your courtesy copy E-Mail, sent to Dr. Michael C. Trahos - Chairman, Region-20 Public Safety Legislative/Regulatory Committee, addressed to Mr. Richard Reynolds - Chairman, Region-28 Public Safety Plan Update Committee, regarding our scheduled January 15, 1997 meeting.

In that correspondence you state; "I encourage you to consider all matters of concern to you both and pursue a mutual satisfactory resolution *outside FCC intervention*."(Emphasis added) In encouraging that resolution be achieved "*outside FCC intervention*", please do not loose site of the following facts:

1. Region-28 (with Richard Reynolds - Chairman, Plan Update Committee) violated FCC rules, regulations and regional plan orders by:

   a. approving 40 dBu F(95,95) contours for the State of Delaware (of which Richard Reynolds is an employee) 821 MHZ system (of which Richard Reynolds is Project Manager) that encroaches as much as 50 miles into Region-20 (State of Maryland);

   b. did not seek adjacent regional (Region-20) approval *prior* to this encroachment;

   c. did not inform the adjacent region (Region-20) of this unauthorized encroachment;

   d. when questioned about this encroachment by Region-20, Richard Reynolds (Chairman/Employee/Project Manager) acknowledged same and;

   e. implied that after the 821 MHZ system was operational, the acquisition of adjacent region concurrence for post construction operational encroachment into Region-20 was the responsibility of the vendor of the Delaware system.

2. Because of the above and considering the obvious and stated disinterest of the FCC to consider these facts when rendering its recent Order (DA 96-2066) concerning the Region 20 and 28 Plans, the FCC left no alternative than for Region-20 to have filed the **MOTION FOR EMERGENCY INJUNCTIVE STAY** and **PETITION FOR EMERGENCY DECLARATORY RULING**, as a means of addressing the gross federal statutory and FCC Order violations regarding this matter.

3. It is further because Region-28 acted as it did initially and subsequently, that Region-20 is not confident that Region-28 will suddenly assume a more responsible position concerning this matter. Consequently, Region-20 firmly believes that the FCC ***must*** exercise its statutory responsibility and act affirmatively on the above noted **MOTION** and **PETITION**, less the FCC be viewed as unable and/or unwilling to ensure that the *public's interest* in all public safety regions (including Region-20) are protected. Region-20 **fully expects** the FCC to exercise this responsibility in accordance with Title 47 of the Code of Federal Regulations and the Administrative Procedure Act. Please consider the ramifications if Public Safety Regional Plan Review Committees approve, and the FCC allows, 821 MHZ systems to radiate 40 dBu+ signal strength contours that extend unauthorized well beyond their borders, ultimately resulting in ***harmfull interference*** to adjacent regions. **This will result in utter chaos!**

The meeting scheduled for January 15, 1997 will occur. However, the issue described above must be corrected by Region-28 and the State of Delaware as a result of FCC Order before truly meaningful discussions can occur, discussions that Region-20 sincerely hopes will lead to future mutual interregional coordination procedures, mutual cooperation, candor, respect and trust with Region-28.

Lastly, Region-20 would be pleased if you were to attend the scheduled January 15, 1997.

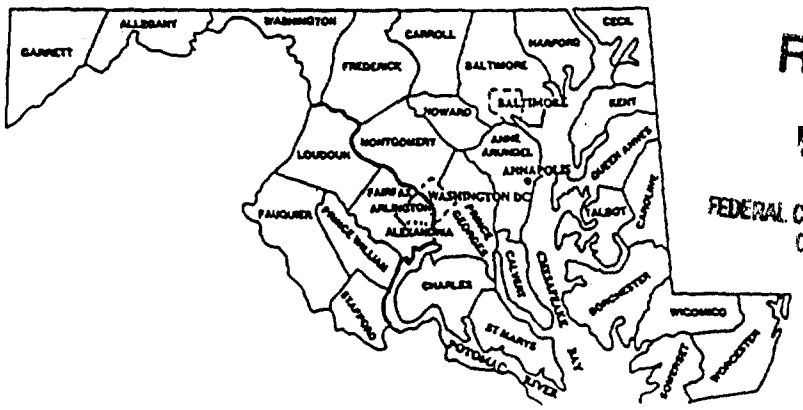
Sincerely,

Steve Souder

Steve Souder - Chairman, Region-20 RPRC

EXHIBIT D

REGION-20 PUBLIC SAFETY LEGISLATIVE/REGULATORY AFFAIRS COMMITTEE



BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WIRELESS TELECOMMUNICATIONS BUREAU
PRIVATE WIRELESS DIVISION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Washington, DC Metropolitan Area	)	
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(Region-20)	)	
	)	
Philadelphia Metropolitan Area	)	
Regional Public Safety Plan	)	GN Docket No. 89-573
(Region-28)	)	

WRITTEN EX PARTE PRESENTATION:
POLICY STATEMENT -
REGION-20 PUBLIC SAFETY INTER-REGIONAL COORDINATION

Submitted by:

Region-20 Public Safety Review Committee
Legislative/Regulatory Affairs Committee
Dr. Michael C. Trahos, D.O., NCE, CET - Chairman
4600 King Street, Suite 4E
Alexandria, Virginia 22302-1213

January 15, 1997

Before the
Federal Communications Commission
Wireless Telecommunications Bureau
Private Wireless Division
Washington, D.C. 20554

In the Matter of	)	
Washington, DC Metropolitan Area	)	
Regional Public Safety Plan	)	GN Docket No. 90-7
(Region-20)	)	
	)	
Philadelphia Metropolitan Area	)	
Regional Public Safety Plan	)	GN Docket No. 89-573
(Region-28)	)	

WRITTEN EX PARTE PRESENTATION: POLICY STATEMENT - REGION-20 PUBLIC SAFETY INTER-REGIONAL COORDINATION

Submitted by:

Region-20 Public Safety Review Committee
Legislative/Regulatory Affairs Committee
Dr. Michael C. Trahos, D.O., NCE, CET - Chairman
4600 King Street, Suite 4E
Alexandria, Virginia 22302-1213

January 15, 1997

I. INTRODUCTION

1. Before the Federal Communications Commission (Commission) is presented, pursuant to the conditional acceptance **ORDER** regarding the Region-20 and 28 Plans[1], this **POLICY**

[1] **ORDER**, GN Docket Nos. 90-7 & 89-573, DA 96-2066, December 9, 1996.

STATEMENT concerning the Region-20 Public Safety Review Committee's (Region-20) policy on *inter*-regional coordination. This **ORDER** instructs Region-20 to submit to the Commission a detailed statement "that sets forth its inter-regional coordination procedures in detail."[2] This document sets forth Region-20's policy, and justified reasoning, for its currently used method for inter-regional coordination and the need to maintain this methodology for the future.

II. POLICY STATEMENT

A. History - Public Safety Spectrum Allocations

2. By 1970, the Commission began to realize that the need of the Private Land Mobile Radio Services (PLMRS) were becoming enormous. In response, the Commission re-allocated UHF-TV spectrum via Docket No. 18261, which provided sharing between broadcast and land mobile UHF-TV channels 14-20 at 470-512 MHZ (T-Band), and Docket No. 18262, which provided for the re-allocation of UHF-TV channels 70-83 at 806-960 MHZ (115 MHZ of spectrum). In adopting these proceedings, the Commission stated:

> "[The] land mobile service is faced with a severe shortage of frequencies in large urban areas. We are persuaded...that substantial additional spectrum space must be made available to the land mobile services to met existing, and more importantly, future needs...".[3]

3. In August 1983, the Planning Staff of the Commission's then Private Radio Bureau (PRB) released its Final Report regarding "Future Private Land Mobile Telecommunications

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[2] **Ibid**., at Paragraph 11.

[3] **FIRST REPORT & ORDER AND SECOND NOTICE OF INQUIRY**, Docket No. 18262, FCC 70-519, 35 F.R. 8645, Paragraph 7-9.

Requirements".[4] As part of its intensive and thorough evaluations, the PRB summarized the spectrum shortages up to the year 2000 for the top 21 Metropolitan Statistical Area (MSA) markets, considering the effects with and without spectrum efficient modalities such as trunking, digital and narrowband emissions, and cellular technology. Despite the effects of anticipated new technology, estimated spectrum requirements for the year 2000 for the Baltimore/Washington MSA (Region-20) and Philadelphia MSA (Region-28) were 71 and 59 MHz respectively.[5]

4. In 1984, the Commission took the first steps to carry out PRB's recommendations. On November 21, 1984, the Commission adopted three *Notices of Proposed Rule Making*, GN Docket Nos. 84-1231, 84-1233, and 84-1234, regarding the disposition of the remaining 800-900 MHZ "Reserve" spectrum allocated via Docket No. 18262. In the *Report & Order* to these proceedings, the Commission allocated 10 MHZ to Cellular, 16 MHZ to the PLMRS, 2 MHZ to a New General Purpose Mobile Radio Service and 4 MHZ into a "Reserve II" pending further considerations.[6]

5. In 1987, the Commission adopted the *Report & Order* in GN Docket No. 87-112 which amended 47 CFR Part 90 to establish service rules and technical standards for the use of the 821-824/866-869 MHZ (hereinafter 821 MHZ) band (6 of the 16 MHZ of spectrum allocated to the

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[4] **FUTURE PRIVATE LAND MOBILE TELECOMMUNICATIONS REQUIREMENTS**, Final Report, Private Radio Bureau, FCC, August, 1983.

[5] **Ibid**, Executive Summary, Page 3.

[6] **REPORT AND ORDER**, GN Docket Nos. 84-1233, 2 FCC Rcd 1825 (1986), FCC 86-333, Paragraph 2.

PLMRS in the GN Docket No. 84-1233 proceeding) by the Public Safety Radio Services and for the development and implementation of a Public Safety National Plan.[7]

6. In 1990, the Commission issued an *Order* adopting the Washington D.C. Metropolitan Area Regional Public Safety Plan (Region-20 Plan).[8] A subsequent Region-20 Plan amendment was Commission adopted on February 10, 1994.[9] The most current Region-20 Plan amendment was recently conditionally adopted by the Commission on December 9, 1996.[10]

B. Region-20 Policy - *Intra*-Regional and *Inter*-Regional Coordination

7. When the Region-20 Regional Planning Committee was convened, it initially participated in the voluntary APCO data base frequency distribution sort done by CET, Inc.(CET-sort). Though adequate as a starting point, Region-20 soon realized that the CET-sort was based on fixed-mileage separation criteria and did not adequately address the needs of dense urban areas[11] where optimum frequency reuse was needed through the short-spacing of systems, thereby resulting in greater spectrum efficiency.

8. To accomplish the need for the short-spacing of systems and yet provide for adequate separation between systems, Region-20 adopted an *intra*-regional and *inter*-regional 41 F(95,95)/5

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[7] **REPORT AND ORDER**, GN Docket No. 87-112, 3 FCC Rcd 905 (1987)

[8] **ORDER**, GN Docket No. 90-7, 5 FCC Rcd 1984 (1990).

[9] **ORDER**, GN Docket No. 90-7, 9 FCC Rcd 703 (1994).

[10] **ORDER**, GN Docket Nos. 90-7 & 89-573, DA 96-2066, December 9, 1996.

[11] **Ibid**., Footnote 5.

F(95,95) dBu (hereinafter 41/5 dBu) co-channel and 41 F(95,95)/25 F(95,95) dBu (hereinafter 41/25 dBu) adjacent channel signal strength contour protection criteria.[12] Region-20's justification for using this methodology has been well established in past/current Commission proceedings, rules and regulations.

C. Commission Proceedings, Rules and Regulations

9. In 1988, the Commission released an *Erratum* to the *Report & Order* in GN Docket No. 87-112. This *Erratum* modified 47 CFR 90.635 to now include the 821 MHZ band.[13] This modified rule section now states that applicants constructing stations in the 821 MHZ band are "required to justify power levels and antenna heights requested."[14]

10. In 1991, the Commission adopted the *Report & Order* in PR Docket No. 90-34. This proceeding adopted rules that permitted applicants the short-spacing of SMR 800 MHZ systems utilizing a 40 F(50,50)/22 F(50,10) dBu (hereinafter 40/22 dBu) separation requirement.[15]

11. In 1992, the former National Association of Business and Educational Radio, Inc. (NABER) submitted a *Petition for Rule Making*, RM-8028, requesting amendment of 47 CFR 90.261 (c) & (d) "to require 40/22 dBu contour protection"[16] for the short-spacing of non-SMR

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[12] **Ibid**., Footnote 10 and **47 CFR 90.621(g)**.

[13] **ERRATUM**, GN Docket No. 87-112, DA 87-1869, Page 8.

[14] **47 CFR 90.635 (b) & (c)**

[15] **REPORT AND ORDER**, PR Docket No. 90-34, 6 FCC Rcd 4929 (1991)

[16] **PETITION FOR RULE MAKING**, RM-8028, March 6, 1992, Page 6.

800 MHZ systems. RM-8028 was submitted because the then short-spacing separation requirement of 40 F(50,50)/30 F(50,10) dBu "did not adequately protect co-channel systems."[17]

12. On January 8, 1993, this Committee, along with other representative members from Region-20, made an *Oral Ex Parte Presentation* before the then PRB Chief and Deputy Chief.[18] During this *Ex Parte*, Region-20 noted that the proposed 40/22 dBu separation criteria was insufficient protection for the short-spacing of non-Public Safety against Public Safety 800 MHZ systems due to the inherent Public Safety use of low-power, portable radios. The Commission responded by stating that though a 40/5 dBu separation protection criteria would not be possible for 800 MHZ Public Safety, a more reasonable compromise to the proposed 40/22 dBu could be 40/17 dBu and that this new value would be strongly considered.

13. On March 11, 1993, the Commission adopted a *Notice of Proposed Rule Making*, PR Docket No. 93-60, to implement the rule amendments proposed in RM-8028.[19] The Commission in this *Notice*, however, elected not to increase the protection to 800 MHZ Public Safety systems as discussed during the *Oral Ex Parte Presentation* of January 8, 1993.

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[17] **Ibid**.

[18] **ORAL EX PARTE PRESENTATION**, PR Docket No. 90-34 & RM-8028, January 8, 1993

[19] **NOTICE OF PROPOSED RULE MAKING**, PR Docket 93-60, 8 FCC Rcd 2454 (1993)

14. In response to this *Notice*, this Committee made a 600+ page *Comments* submission.[20] These *Comments* presented detail studies to support the need for > 40/22 dBu short-spacing protection for 800 MHZ Public Safety systems.

15. On September 22, 1993, the Commission adopted the *Report & Order* in PR Docket No. 93-60.[21] It adopted a 40/22 dBu short-spacing separation protection criteria for all 800 MHZ systems, which requires that the "22 dBu signal strength contour of a proposed station does not fall within the 40 dBu signal strength contour of an existing station".[22] The Commission did so with an explanation that though "Public Safety system designers have chosen to use a 40/5 dBu criteria to determine spacings for systems in the 821-824/866-869 MHZ Public Safety band", to implement such a criteria at 800 MHZ would be to "difficult to administer."[23]

16. On June 15, 1995, the Commission adopted the *Report and Order* in PR Docket No. 92-235, the *Refarming* of the VHF/UHF land mobile radio services.[24] In the original *Refarming Notice*, the Commission proposed to limit transmitter power and antenna heights to promote channel reuse.[25] Cementers to the *Notice* expressed opposition due to the concern that the

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[20] **COMMENTS**, PR Docket No. 93-60/RM-8028, Region-20 Public Safety, May 28, 1993

[21] **REPORT AND ORDER**, PR Docket No. 93-60, FCC 93-450.

[22] **Ibid**., at Paragraph 1.

[23] **Ibid**., at Footnote 13.

[24] **REPORT AND ORDER**, PR Docket No. 92-235, FCC 95-255, June 15, 1995.

[25] **NOTICE OF PROPOSED RULE MAKING**, PR Docket No. 92-235, 7 FCC Rcd 8105 (1992).

Commission's "transmitter power/antenna height proposal would be very costly to implement because they would force users to add additional stations to cover their existing service area."[26] Upon review of the expressed concerns, the Commission rejected the above argument and stated;

> "... we (Commission) remain convinced that steps must be taken that will permit increased channel reuse. The existence of high power systems can limit the choices available to other current and future co-channel users. In addition, the use of more transmitter power than necessary is contrary to the Commission's rules (47 CFR 90.205[a]) and reduces the amount of spectrum available to other users."[27] (Parenthesis added)

17. On December 15, 1995, the Commission adopted the *First Report & Order* in PR Docket No. 93-144, which amended 47 CFR Part 90 to facilitate future development of wide-area SMR systems.[28] Two important Commission policies emerged from this proceeding; (1) rejection of fixed-radius protected service areas, and (2) permission to add new transmitters within a designated service area *without* prior Commission notification.[29]

18. In this *First Report & Order*, the Commission authorized incumbent 800 MHZ SMR licensees to add new transmitters to their existing service area, so long as their co-channel interference protection contours were not expanded.[30] 47 CFR 90.693 was therefore modified for the reasoning that;

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[26] **Ibid**., Footnote 26, at Paragraph 68.

[27] **Ibid**., at Paragraph 69.

[28] **FIRST REPORT AND ORDER**, PR Docket No. 93-144, FCC 95-501, December 15, 1995

[29] **Ibid**, Paragraph 86, Page 52.

[30] **Ibid**., at Paragraph 86.

> "We (Commission) reject the suggestion to use a fixed-radius protected service area for existing systems, because we conclude that this measure does not correspond adequately to the market served by 800 MHZ providers."[31]

19. On November 8, 1996, the Commission adopted a *Notice of Proposed Rule Making*, GN Docket No. 96-228, proposing the creation of a new 47 CFR Part 27 Wireless Communications Service (WCS) at 2305-2320/2345-2360 MHZ.[32] To maximize frequency reuse, the Commission has proposed "to require that WCS systems be designed to not exceed a signal level of 47 dBuV/m (47 dBu) at the licensee's service boundary unless adjacent service area licensees have agreed to a different signal level."[33] (Parenthesis added)

20. On December 23, 1996, the Commission adopted the *Memorandum Opinion & Order* in PR Docket No. 92-235.[34] The Commission agreed with reconsideration petitioners of the *Refarming Report & Order* in that "special consideration should be given to the power/antenna heights in areas of extreme terrain"[35] conditions "or need for a larger service area".[36] As a result the Commission modified 47 CFR 90.205 (d)(2) & (g)(2) requiring those applicants, where such special circumstances exist, to submit applications:

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[31] **Ibid**.

[32] **NOTICE OF PROPOSED RULE MAKING**, GN Docket No. 96-228, FCC 96-441, November 8, 1996.

[33] **Ibid**., at Paragraph 28.

[34] **MEMORANDUM OPINION AND ORDER**, PR Docket No. 92-235, FCC 96-492, December 23, 1996; See also Paragraph 16 supra.

[35] **Ibid**., at Paragraph 30.

[36] **Ibid**., at Paragraph 31.

> "to the frequency coordinator accompanied by a technical analysis, based upon generally accepted engineering practices and standards, that demonstrates that the requested station parameters will not produce a signal strength in excess of 37 dBu at any point along the edge of the requested service area. The coordinator may then recommend any ERP appropriate to meet this condition."[37]

The Commission further reiterated that the purpose of the 47 CFR 90.205 power limitation rules are "to reduce the incidence of over-powered stations and promote frequency reuse."[38]

D. Summation

21. History has shown the Public Safety community that radio frequency spectrum is scarce and a valuable commodity resource. To meet the demand for their endless burdening needs[39], Public Safety regions and entities *must* utilize and implement maximum spectrum management techniques of this valuable resource.[40]

22. Public Safety Regional Plan Review Committees (RPRCs) need to take note, as Region-20 already has, of past/present Commission proceedings and implement the spectrum management policies adopted. And with Commission oversight, these include:

- Rejection of *inter*-regional fixed-radius and/or fixed-millage protected service areas, since such separations are unnecessary and counter-productive in the promotion of *intra*-regional and *inter*-regional spectrum efficiency and frequency reuse; [41]

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[37] **Ibid**., at Page 88.

[38] **Ibid**., at Paragraph 32.

[39] **PUBLIC SAFETY WIRELESS ADVISORY COMMITTEE**, Final Report, September, 1996, at Section 2.2.1.

[40] **Ibid**., at Section 2.1.12.

[41] See Paragraphs 17 & 18 supra.

- Establish adequate *inter*-regional short-spacing interference free separation criteria (example: 41/5 dBu co-channel and 41/25 dBu adjacent channel) to insure proper Public Safety system protection from harmful interference, particularly to low power, hand-held operations;[42]

- Require proper engineering design such that an applicant's 40 dBu signal strength contours do not extend beyond its designated *intra*-regional boundary unless *pre*-license authorization concurrence from the adjacent region(s) has been properly secured;[43]

- Require authorized *inter*-regional signal strength emission contours $\geq$ 5 dBu, that radiate into an adjacent region, to abide by the established *intra*-regional co-channel and/or adjacent channel interference free separation protection criteria of that adjacent region;[44]

- Require authorized *inter*-regional co-channel and/or adjacent channel interference free signal strength protection contours not fall within any adjacent region operational service area signal strength contours (example: an adjacent region system 5 dBu contour does not fall *inter*-regional within a co-channel system 40 dBu contour);[45]

- Permit RPRCs to *intra*-regionally short-space systems, that is the addition of systems within the designated boundaries of a Public Safety region[46], without adjacent region RPRC prior approval when such short-spaced systems produce *intra*-regional signal strength contours $\leq$ 5 dBuV/m (5 dBu or 0.35 um) at the border of an adjacent region;[47]

- Require pre-license authorization and system engineering design adherence to 47 CFR 90.205 and 90.635, to reduce the incidence of over-powered stations and to promote maximum *intra*-region and *inter*-region frequency reuse.[48]

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[42] See Paragraphs 11 - 15 supra.

[43] See Paragraphs 19 & 20 supra.

[44] **47 CFR 90.621 (g)**

[45] See Paragraph 15 supra.

[46] **Ibid**, Footnote 7, at Appendix B

[47] See Paragraphs 17 & 18 supra.

[48] See Paragraphs 9, 16 & 20 supra.

REGION-20 PUBLIC SAFETY LEGISLATIVE/REGULATORY AFFAIRS COMMITTEE

23. Region-20 has always endeavored to promote spectrum efficiency and proper frequency management. To this end, Region-20 believes its currently established policy regarding *inter*-regional coordination has, and continues to be, proper in both established engineering standards, principle & practice and Commission policies, rules & regulations.

Respectfully submitted,

Michael C. Trahos

Dr. Michael C. Trahos, D.O., NCE, CET
Chairman - Region-20 Public Safety Legislative/
Regulatory Affairs Committee